

ABSTRACT OF THE DISCLOSURE

An imagery characteristic is corrected by changing the position and/or orientation of a reticle or lens elements of a projection lens system. Correction of the imagery characteristic, however, causes displacement of the projected pattern image of the reticle. The relation between the driving amount of the lens
5 elements and reticle and the lateral displacement of the center of the pattern image of the reticle is stored as a table in advance. When the lens elements and/or the reticle are driven, lateral displacement of the pattern image can be obtained by accessing the table. Alternatively, the lateral displacement can be determined using a base-line amount corresponding to a distance between a
10 detection center of a substrate position detector and a center of the projected image. Once the pattern image displacement is determined, the substrate can be accurately positioned. In another arrangement, a mask alignment method prevents positional shift of a projected image of a mask pattern even if the projection magnification of the projection optical system is changed.

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